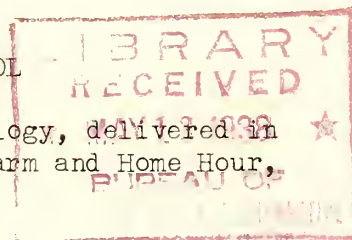


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KEEPING THE TICK MENACE UNDER CONTROL



A Radio Talk - By F. C. Bishopp, Bureau of Entomology, delivered in the Department of Agriculture period of the National Farm and Home Hour, Friday, March 31, 1933.

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The welcome coming of spring brings along some obnoxious and dangerous pests which are not so welcome. Today I'm going to tell you something about one kind of these pests--the TICKS. And I have a two-fold reason for doing this. On the one hand, some of you who have read of the tick's bad reputation may be unduly alarmed. On the other hand, there may be those among you who do not know about the dangerous diseases which ticks can carry, and therefore are not as careful as they should be.

Tularemia, or rabbit fever, is sometimes carried to man by ticks of several kinds, from animals suffering with this disease. In parts of the Southwest and West, man is occasionally inoculated with a disease called relapsing fever, by the bite of a kind of tick found mainly in caves and the burrows of animals. A peculiar form of paralysis is also caused by ticks. Rocky Mountain spotted fever, however, is the most widespread and dangerous of these tick-borne diseases of mankind. It has been present for years in the northern Rocky Mountain and inter-mountain regions of the West, but in the last few years it has been recognized as occurring in a number of the Central, Eastern and Southern states. Apparently this fever is still rather localized in these states, and special precautions should be taken to avoid tick bites in the localities where the disease is known to occur.

Now the common dog tick is known to carry Rocky Mountain spotted fever in the eastern part of the country. The dog tick passes through four states--the egg, the seed tick or larva, the nymph, and the adult. The eggs, laid on the ground in masses of about 4,000 hatch in about a month into the tiny six-legged seed ticks. These attach to small wild animals or even birds, and in about 4 to 6 days engorge with blood, then drop to the ground, molt their skins and change into eight-legged, brownish nymphs. These nymphal ticks in turn engorge on small wild animals, drop off, and molt to adult males and females. These adult ticks pass the winter in protected places and emerge in the spring to attack man or the larger wild and domestic animals. The females, when engorged, are nearly half an inch long and very much swollen. These engorged females drop off, seek protected places, and here lay their eggs in masses, as just explained. All these changes take about a year.

You see, this gives a chance for the tick in one of its immature stages to pick up the disease from some wild animal. The adult stage of the tick, which may eventually bite one of you, will carry the Rocky Mountain spotted fever organisms.

Now for a few suggestions about control. Ticks, and the animals on which the young ones feed, like the protection of undergrowth and brush, so clear this away from houses, camps, and walks which are frequently used. If ticks are very abundant near a permanent camp site you might try spraying the area around the camp and along the trails with creosote oil. This kills the vegetation and repels the ticks to some extent.

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Destroy field mice and other small wild animals around habitations, because these are the main hosts on which the young tick feeds. As the adult ticks engorge mostly on dogs and horses, examine these animals and remove all the ticks at least every six days. As there is some danger from handling and crushing the ticks, disinfect your hands immediately after picking the ticks from an animal. The use of forceps in picking off the ticks will lessen this danger. If you have to treat many animals it is advisable to spray them or, better, to dip them, in a tick killing solution. Use the standard arsenical solution or a coal-tar dip.

The use of derris powder on tick-infested dogs is advised to prevent the ticks from becoming engorged with blood, dropping off and reproducing. Derris powder or a proprietary powder containing the essential principle of derris (rotenone) may be obtained from drug stores or pet animal stores. The material is applied thoroughly but lightly to all portions of the animal infested with ticks. Applications if made every three days will largely prevent the attachment and engorgement of ticks.

For those more or less constantly exposed to ticks in territory infected with spotted fever the U. S. Public Health Service suggests using a vaccine now being prepared by that Service.

For those who love the out-of-doors I would suggest hiking clothes consisting of close-fitting trousers with laced boots over them. Most of the ticks are on the vegetation and must crawl up the legs. This suggests the use of kerosene on the uppers of the boots, or a strip of cloth lightly treated with creosote oil, tied around the tops of the boots.

But some ticks are likely to get by these barriers, and so you should examine your body carefully for ticks. I can't emphasize too strongly to all of you who are in areas where ticks occur even in small number. Look for them especially at the edge of the hair. Ticks lie close to the skin and are sometimes not felt until they begin to engorge. There is little danger of infection with Rocky Mountain spotted fever unless a tick has been attached for several hours; hence careful examinations not more than eight hours apart will practically assure freedom from this dreaded disease. One danger which should not be overlooked is that of bringing ticks into the house on clothing or dogs. Ticks so brought in may attach to a person. If you make frequent excursions into the woods I would suggest that you remove your clothing promptly on return, drop it into a tightly covered can or box, and fumigate it by placing on top of it a flat pan of carbon tetrachloride, about one tablespoonful to each cubic foot of space in the can.

Remember that these wood ticks are most abundant in the spring and early summer. They usually disappear about August 1st.

Now I hope this talk will not have the effect of keeping you from enjoying the great out-of-doors this spring. It is well, however, to recognize the danger of tick bites and to know how to avoid them. I thank you.